

**CONTRACTOR QUALITY CONTROL PLAN
FOR CAMP ALLEN LANDFILL, AREA B
SOIL AND DEBRIS REMOVAL
NAVAL BASE
NORFOLK, VIRGINIA
CONTRACT NO. N62470-93-D-3032**

Prepared For:

Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia

Prepared By:

OHM Remediation Services Corp.
Pittsburgh, Pennsylvania
A Subsidiary of OHM Corporation

Final Submittal
March 14, 1994
OHM Project No. 15444-LAN-004

02.06-03/01/94-00605

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES	ii
LIST OF FIGURES	ii
1.0 STATEMENT	1
2.0 PROGRAM ORGANIZATION AND PERSONNEL RESPONSIBILITIES	2
2.1 PROGRAM MANAGER, GEORGE E. KRAUTER, P.E.	2
2.2 PROJECT MANAGER, JOSEPH W. COLELLA, P.E.	3
2.3 SITE SUPERVISOR, TO BE NAMED	3
2.4 PROGRAM QC MANAGER, MICHAEL GILMAN	3
2.5 QUALITY CONTROL REPRESENTATIVE, GEORGE FANELLI	3
3.0 METHODS OF INSPECTION	5
4.0 SAMPLING PROCEDURES	7
5.0 ANALYTICAL TESTING	8
6.0 FIELD VERIFICATION TESTING	9
6.1 GEOTECHNICAL QUALITY CONTROL PROCEDURES	9
6.1.1 Field Sampling	10
6.2 INSPECTIONS	10
6.3 PERFORMANCE DOCUMENTATION	10
6.4 REVIEW OF CONSTRUCTION CONTROL DATA	11
6.5 AS-BUILT DOCUMENTATION	11
7.0 INSPECTION AND TESTING DOCUMENTATION	12
8.0 MEETINGS/COORDINATION	13
8.1 COORDINATION AND MUTUAL UNDERSTANDING MEETING	13
8.2 QC MEETINGS	13

TABLES

FIGURE

APPENDIX A - PROFESSIONAL PROFILES

APPENDIX B - PROJECT FIELD ACTIVITY FORMS

LIST OF TABLES

<u>TABLE NO.</u>	<u>TITLE</u>
1	INSPECTION SCHEDULE
2	CONSTRUCTION TESTING PLAN

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>
1	QUALITY CONTROL ORGANIZATION CHART

1.0 STATEMENT

OHM Remediation Services Corp. (OHM), a subsidiary of OHM Corporation, will provide and maintain an effective Contractor quality control (QC) program as required by contract clauses. This program will be performed in conjunction with the Program Quality Control Plan (OHM, 1993) as applicable and in accordance with the requirements of Contract No. N62470-93-D-3032, Atlantic Division, Naval Facilities Engineering Command, dated August 1993. OHM will perform the inspections and tests required to ensure that materials, workmanship, and construction conform to the drawings, specifications, and contract requirements. OHM will perform the test or inspection specified, unless the required inspection and/or test is specifically designated to be performed by the Government.

The Government, defined as the United States Navy (USN), will perform the quality assurance (QA) role. Supporting the Navy Technical Representative (NTR) is the QA Representative who will serve to provide QA.

2.0 PROGRAM ORGANIZATION AND PERSONNEL RESPONSIBILITIES

OHM will implement the Contractor Quality Control Program (CQCP) by establishing a QC organization which works directly with the Navy's on-site representative and reports to the OHM program QC manager. The QC organization will consist of not less than one full-time QC person who will be on the job site while work is in progress to verify compliance with the contract requirements. The QC organization will be supplemented by additional QC personnel as may be necessary. OHM recognizes that the NTR reserves the right to replace a member of the QC staff who, in the opinion of the NTR, is not accomplishing their assigned duties.

The CQCP includes an inspection schedule, which will be available for review prior to the start of construction and throughout the life of the project. The inspection and testing processes will monitor the overall quality of work, and project controls will be instituted to assure correction of deficiencies identified during the inspections and testing. Project scheduling will be instituted to assure proper sequence and performance of work activities.

The NTR will be notified in writing prior to proposed changes to the CQCP, and the proposed changes will be subject to the NTR's approval prior to implementation.

OHM's QC organization chart for Delivery Order 003 is included as Figure 1. Professional profiles of OHM's project team and QC team are provided in Appendix A. The responsibilities of each person identified in the QC organization are presented below.

2.1 PROGRAM MANAGER, GEORGE E. KRAUTER, P.E.

The program manager has ultimate responsibility for QC of project deliverables. Specific responsibilities include:

- Reviewing all deliverables prior to submittal to Atlantic Division, NFEC
- Communicating with project manager to ensure project schedule and scope compliance
- Communicating with contracting officer (CO), contracting officer's technical representative (COTR), and/or NTR on a regular basis to review project progress and contract compliance
- Reviewing program QC procedures
- Providing cost accounting updates to verify project is within budget.

2.2 PROJECT MANAGER, JOSEPH W. COLELLA, P.E.

The project manager is responsible for:

- Providing deliverables which are both responsive and on schedule
- Reviewing all project activities including, but not limited to, sampling, decontamination, documentation, chain-of-custody procedures, site rules and compliance, and compliance with the OHM site-specific health and safety plan and the work plan
- Monitoring project progress to ensure schedule and budget maintenance
- Ensure CQC program is being performed.

2.3 SITE SUPERVISOR, TO BE NAMED

The site supervisor is responsible for day-to-day on-site activities. He communicates with the project manager to update him on project progress and QC activities.

2.4 PROGRAM QC MANAGER, MICHAEL GILMAN

The program QC manager is responsible for delivery order quality and, for this delivery order, will provide support to the project manager on an as-needed basis. If an independent site audit were to take place during site activities, the program QC manager representative would perform the audit. The program QC manager will oversee work performed by the site QC representative. The QC manager will also monitor the correction of any nonconforming work. He will also be responsible for reviewing the laboratory QC program to ensure its conformance with the contract program requirements.

2.5 QUALITY CONTROL REPRESENTATIVE, GEORGE FANELLI

The responsibilities of the QC representative will include:

- Perform, or cause to be performed, daily inspections and tests of the scope and character necessary to achieve the quality of construction outlined in the plans and specifications for work under the contract.
- Maintain the latest applicable drawings and specifications with amendments and/or approved modifications at the job site and assure that they are used for shop drawings, fabrication, construction, inspections, and testing.
- Maintain marked-up drawings at the site depicting as-built conditions. The drawings will be available for review by the NTR at all times.

- Maintain a Government furnished submittal register for the duration of the contract. The format for this submittal register is presented in Appendix B. A review of the register will be performed at least every 14 days in conjunction with the scheduled dates on the register and in relation to the actual work status. Appropriate actions will be undertaken should slippages or other changes so necessitate.
- Review shop drawings and/or other submittals for compliance with the contract requirements prior to their transmission to the Navy.
- Authorization to temporarily shut down a portion of work if work practices or procedures are determined to be incorrect or out of compliance with the specifications.
- Authorization to stop a work task or series of tasks after consultation with the site supervisor and NTR in the event that severe weather conditions interfere with quality of work.
- Responsible for testing construction and backfill materials for compliance with specifications and authorized to reject materials to be used if they are not in compliance.
- Establish and maintain a Rework Items List program and a tracking and/or suspense system to monitor and assure inspection and testing activities and frequencies are in accordance with the contract requirements. This list will be submitted on a monthly basis.
- Attend and assist the Government at the prefinal inspection and the final acceptance inspection.
- Assist in preparing Contractor Production Report.
- Prepare and submit daily Contractor QC Report.
- Prepare, maintain, and continually update the Construction Testing Plan and Log for the field activities.

3.0 METHODS OF INSPECTION

A three-phase control system will be implemented for each major work task and will include preparatory, initial, and followup inspections. The QC representative will assure that no work proceeds until the appropriate inspection phase has been performed. An inspection schedule listing the expected major phases of work for which the inspections will be conducted is presented in Table 1. The facility components of the inspection, factors to be inspected, test type, and frequency of testing are presented in Table 2, Construction Testing Plan. In addition to and independent of the QC representative, the SSO and site supervisor will implement this same control system as part of their normal duties/ responsibilities. The inspection phases are discussed in the following paragraphs.

A preparatory inspection will be performed by the QC representative prior to beginning physical work. This will include a review of contract requirements; a check of the data sheets to assure that materials and/or equipment have been tested, submitted, and approved; a check to assure that provisions for required control testing have been made; examination of the work area to ascertain that preliminary work has been completed; and a physical examination of materials and drawings or submittal data and that materials and/or equipment are on hand.

As a part of this preparatory work, the QC representative will review shop drawings, certificates, and other submittal data prior to submission to the NTR. Each submittal presented to the NTR will bear the date and the signature of the QC representative indicating that the submittal has been reviewed and is in compliance with plans and specifications or show the required changes to meet the specifications. The NTR will be notified a minimum of 24 hours prior to the beginning of the preparatory inspection.

An initial inspection will be performed by the QC representative as soon as a representative segment of the particular item of work has been accomplished. The initial inspection will include examination of the quality of workmanship and a review of control testing results for compliance with contract requirements, use of defective or damaged materials, omissions, and dimensional requirements.

Follow-up inspections will be performed by the QC representative daily or as frequently as necessary to assure continuing compliance with contract requirements, including control testing, until completion of the particular segment of work.

In addition to this three-phase inspection control system, special inspections or testing may be conducted in the event of an approved change or modification to work plans or field operations. The QC representative will coordinate scheduling of special inspections with the Contracting Officer at the time when a change or modification in work operations has been approved.

It is OHM's responsibility to identify and correct deficiencies in the work. To ensure that defective work is corrected and not built upon, a Rework Items System will be implemented. Rework items identified in the work during any of the inspections or testing programs by a party to this contract will be corrected as soon as practicable and recorded by completing a Rework Items List. The list will be issued to the site supervisor and a copy attached to the

inspection report. The QC representative will be responsible for obtaining correction by the responsible party and will return the notice report upon correction with a description of the action taken and date completed. The list will be updated accordingly. Rework items will be corrected prior to the final inspection. Copies of the Rework Items List are presented in Appendix B.

Safety inspections will be performed by the site safety officer on a daily basis to assure compliance with occupational health and safety requirements of the contract. Daily QC reports will be used to document the safety inspection and other inspections, and will address the safety deficiencies observed and corrective actions taken.

4.0 SAMPLING PROCEDURES

OHM sampling procedures will meet the requirements of the project scope of work. The protocol for performing the analytical work on the site water and subsurface soil prior to and during the remediation work is presented in the Contractor Sampling and Analysis Plan (CSAP) dated March 11, 1994.

5.0 ANALYTICAL TESTING

The analytical testing laboratory to provide project analytical services will be identified in the cost estimate phase of this project. The tests and/or services to be performed by the testing laboratory are presented in the Contractor Sampling and Analysis Plan (CSAP) dated March 11, 1994. The work to be performed in this section deals with the chemical analysis of the water and soil on site prior to beginning remediation activities.

6.0 FIELD VERIFICATION TESTING

The following procedures will be used by the OHM QC representative during the performance of his/her duties to verify compliance with the contract requirements. Additions or modifications to these procedures may be necessary to address changing circumstances. During the removal action, the Navy will provide an inspector to perform QA checks. The responsibilities of the QC representative are fully described in Section 2.0.

6.1 GEOTECHNICAL QUALITY CONTROL PROCEDURES

Specific field verification testing will be performed in accordance with this plan. OHM will utilize a subcontracted soils testing firm to be named during the cost estimating phase to perform the required field soils testing as per contract specifications. The geotechnician/OHM laboratory manager maintains a QA program of which the equipment is calibrated on regular intervals and all measurements are traceable to National Bureau of Standards. The laboratory testing capabilities include:

- Field control
 - Water content (Nuclear Density Gauge)
 - Density (Nuclear Density Gauge).

In accordance with Table 2, laboratory soils testing will be performed to ASTM methods.

Although the field testing is developed from accepted test procedures (e.g., ASTM), it should be noted that while each test is an approved procedure to test for a specific characteristic, not every test can stand alone in remediation verification. Some tests are less comprehensive than others and require periodic verification by other, more detailed tests. Field tests of this type do not usually determine the primary characteristic of interest, but instead are correlated with it. In the event that any single test fails to meet the specification requirements, a second test will be performed. Should the second test fail, the appropriate corrective action will be taken in the field. If the second test meets the specification requirements, then the corresponding verification test will be conducted. The results of that test will then be used to determine the acceptance or rejection of the construction task being monitored.

Field tests will be performed by the appropriate QC team personnel as soon as possible after material receipt or completion of a specific portion of the work. Testing will be performed on a timely basis to provide prompt confirmation or rejection of the material or constructed work. This will help minimize the possibility of having to remove satisfactory work which has been added to defective material or work.

6.1.1 Field Sampling

Samples of excavated materials and constructed work will be obtained in the field for verification testing. The site technician will collect the specified samples, as appropriate, as soon as areas are deemed clean or a portion of the constructed work is completed to obtain results as promptly as possible. The sampling program will be performed in accordance with

the CSAP and the requirements of this plan, including the construction inspection schedule (Table 1) and the testing plan (Table 2).

6.2 INSPECTIONS

In addition to QC representative directed inspections, standard inspections will be performed during the course of remediation to verify the quality of the final constructed work. There will be visual inspections performed by the site supervisor, a qualified general foreman, or other appropriate personnel. These inspections are supplemental to the QC inspections and are intended to enhance the QC inspections by identifying problem areas that may require more stringent QC inspection. In the event of a discrepancy between one of these visual inspections and the field verification test performed as per Section 7.0 of this document, the field verification test result will take precedence.

Inspections will be performed in accordance with this plan and checklists developed for the remediation. Inspections performed to a guide procedure will be documented in the daily field log while inspections performed to a checklist will be documented on the checklist.

6.3 PERFORMANCE DOCUMENTATION

Construction inspection personnel (site supervisor, general foreman, and QC representative) will keep a daily log of project activities. Whenever possible, information will be recorded on a standardized form or in a bound field logbook. Documentation will include a daily log of construction activities; the appropriate field test, laboratory test, and survey data forms; photographs; and field collection and sampling custody forms.

Construction inspection personnel (e.g., site supervisor and general foreman) will keep a daily log of project activities. Copies of the daily logs will be sent to the site supervisor on a daily basis. After review of the logs, they will be routed to other members of the project team as needed.

As part of the remediation control activities, a photographic record is to be prepared. Photographs will be in color. As examples, photographs could be taken of field testing, sampling locations, remediation processes, and final constructed features.

Photographs are to be identified with the project number, date taken, and a brief description. This may be done individually on the back of the photographs or in an album in which the photographs are mounted. Album photographs must be provided with individual descriptions and dates taken.

Appropriate remediation control test, survey, and material installation data forms will also be prepared. They will include the activity location. All requested information will be addressed. If not applicable, requested information will be designated as such. Results of field and laboratory testing will be sent to the NTR, the project manager and site supervisor as soon as they become available.

Field construction verification records will be collected and maintained by the site supervisor until they are submitted to the project central file.

Field construction verification records will be collected and maintained by the site supervisor until they are submitted to the project central file.

6.4 REVIEW OF CONSTRUCTION CONTROL DATA

The QC representative will review the remediation QC data to verify that remediation specifications are being met, to determine when defective material or work may require removal and/or reconstruction, and to determine when additional testing may be required to confirm the quality of the material or work. The results of field tests, field inspections, receiving inspections, and surveys discussed in Sections 7.1.1 and 7.3 will be reviewed by the QC representative. The review will be made on a daily basis to prevent the construction of new work over defective material or work which is later found to be defective.

6.5 AS-BUILT DOCUMENTATION

All appropriate documentation will be retained in the project records system to provide, documentation of how the remedial action was actually built. Final as-built drawings and specifications will be prepared utilizing this information and retained as a permanent record of the final location, dimensions, and orientation of the construction.

At contract closeout, record documents will be delivered to the NTR. A transmittal letter in duplicate accompanying the submittal will contain:

- Date
- Contract name and number
- Contractor's name, address, and telephone number
- Number and title of each record document
- Signature of contractor or his authorized representative.

7.0 INSPECTION AND TESTING DOCUMENTATION

Daily records of inspections and tests performed for each shift or subcontractor operation will be signed by the QC representative and the original and one copy provided to the Government no later than the next working day. Samples of reports and forms to be utilized are included in Appendix B.

The QC representative will prepare a daily CQC report/production report which will include, as a minimum, the following:

- Project identification.
- Data on weather and any delays attributable to such weather.
- Number of personnel on site (OHM and subcontractors).
- A listing of construction equipment and indication of equipment usage on the report day.
- Factual evidence that continuous QC inspection and tests have been performed. This includes, but is not limited to the following data:
 - Type and number of inspections or tests performed
 - Results of inspections or tests including computations
 - Evaluation of test results--accept or reject work
 - Nature of defects, if present
 - Causes for rejection
 - Safety inspections/violations
 - Proposed remedial action
 - Corrective actions taken.
- The records will cover both conforming and nonconforming work.
- A statement that supplies and materials incorporated into the work are in full compliance with the requirements of the contract.

8.0 MEETINGS/COORDINATION

8.1 COORDINATION AND MUTUAL UNDERSTANDING MEETING

After submission of the QC plan addendum and prior to the start of construction, OHM's project manager, program QC manager, and QC representative will meet with the COTR and the NTR to discuss the QC program required by this delivery order. The purpose of this meeting is to develop a mutual understanding of the QC details, including forms to be used; administration of on-site and off-site work, and coordination of the OHM management, production, and the QC representative's duties with the NTR. Minutes of the meeting will be prepared by the QC manager and signed by both OHM and the COTR.

8.2 QC MEETINGS

After the start of construction, the OHM QC representative will conduct QC meetings once every two weeks or as required by the COTR/delivery order at the work site, or where specified, with the project superintendent and the foreman responsible for the upcoming work. The OHM QC representative will prepare the minutes of the meeting and provide a copy to the COTR within 2 working days after the meeting. The COTR may attend any of these meetings. The QC representative will notify the COTR at least 48 hours in advance of each meeting. As a minimum, the following will be accomplished at each meeting:

- Review the minutes of the previous meeting.
- Review the schedule and the status of work:
 - Work or testing accomplished since last meeting
 - Rework items identified since last meeting
 - Rework items completed since last meeting.
- Review the status of submittals:
 - Submittals reviewed and approved since last meeting
 - Submittals required in the near future.
- Review the work to be accomplished in the next 2 weeks and documentation required. Schedule the three phases of control and testing:
 - Establish completion dates for rework items
 - Preparatory phases required
 - Initial phases required
 - Follow-up phases required
 - Testing required
 - Status of off-site work or testing
 - Documentation required.

- Resolve QC and production problems
- Address items that may require revising the QC plan:
 - Changes in procedures.

— — — — —

TABLES

TABLE 1
INSPECTION SCHEDULE

<i>Activity</i>	<i>Preparatory</i>	<i>Done</i>	<i>Initial</i>	<i>Done</i>	<i>Followup</i>	<i>Done</i>
<u>No. 1150</u> Surface Water Management Facility	Materials meet specification: Hay bales, silt fence Alignment		Proper installation Alignment and location		Proper Installation	
<u>No. 1120</u> Roadway	Materials meet specification: Gravel Alignment and width		Proper workmanship Roadway thickness Alignment and Width		Meets intent of design	
<u>No. 1130</u> Decontamination Pads	Materials meet specification: Asphalt, liner Location Defined		Proper installation Pad thickness Proper grades		Meets intent of design	
<u>No. 1140</u> Drying Pad	Materials meet specification: Stone base, liner, asphalt Location defined		Proper installation Pad thickness Proper grades		Proper installation Meets intent of design	
<u>No. 1160</u> Borrow Material	Sample and analysis Geotechnical properties					

**TABLE 1
(CONTINUED)**

<i>Activity</i>	<i>Preparatory</i>	<i>Done</i>	<i>Initial</i>	<i>Done</i>	<i>Followup</i>	<i>Done</i>
<u>No. 1320</u> Dewatering System	Materials meet specification: Pipe, well screens, mechanical equipment Alignment defined		Proper installation of well points Startup of system Installation of piping and valves Installation of VR and conveyance to water treatment system		Maintenance and tuning of system Measure water levels	
<u>No. 1400</u> Water Treatment System	Materials meet specification: Pipe, valves, tanks, pumps, electrical materials, chemicals Alignment defined		Proper installation of equipment		Maintenance and monitoring of system Water quality sampling and analysis	

**TABLE 1
(CONTINUED)**

<i>Activity</i>	<i>Preparatory</i>	<i>Done</i>	<i>Initial</i>	<i>Done</i>	<i>Followup</i>	<i>Done</i>
<u>No. 1500</u> Excavation Areas 1 and 2 Areas 3, 4, and 5 Areas 6 and 7	Initial limits of area defined Mechanical screen set up and operating Screening equipment (PID, magnetometer) operational		Field screening of excavation Visual inspection of excavation			
<u>No. 1560</u> Confirmation Sampling and Analysis	Sampling and laboratory procedures established		Quality control of sampling and analysis procedures Chain of custody forms			
<u>No. 1630</u> Backfill	Material meets specification Material availability Excavation approved for backfill		Lift thickness Density testing		Grades Density testing	

**TABLE 1
(CONTINUED)**

<i>Activity</i>	<i>Preparatory</i>	<i>Done</i>	<i>Initial</i>	<i>Done</i>	<i>Followup</i>	<i>Done</i>
<u>No. 1650</u> Debris Segregation/ Cleaning	Mechanical screen setup and operating Drying area has capacity Steam cleaner setup and operating		Debris segregated by material Debris visually inspected for clean		Same as initial	
<u>No. 1700</u> Grade Areas/Seed	Materials meet specification: Topsoil, seed		Backfill graded and compacted in accordance with specification Proper contouring of area Thickness of topsoil Installation of seed		Same as initial	
<u>No. 1830</u> Waste Disposal	Waste facility approval Waste profile forms Manifests prepared Logistics for loading and transporting waste		Waste is properly loaded Vehicles weighed Manifests signed Weigh tickets collected		Same as initial	

TABLE 2
CONSTRUCTION TESTING PLAN

<i>FACILITY COMPONENT</i>	<i>FACTORS TO BE INSPECTED</i>	<i>TEST TYPE</i>	<i>TEST METHOD REFERENCE</i>	<i>SECTION OF CONSTRUCTION SPECS, CONTAINING TEST REQUIREMENTS</i>	<i>FREQUENCY OF TESTING</i>
EARTHWORK:					
Backfill Prior to Placement	Soil Type Geotechnical	Visual-Manual Procedure	ASTM D 2487	2220-3	Ongoing
		Grain Size	ASTM D 1140; ASTM D 422	2220-3	1 test/type
		Moisture Content	ASTM D 2216	NA	1 test/type
		Atterberg Limits	ASTM D 4318	2220-3	1 test/type
		Compaction	ASTM D 698	2220-3	1 test/type
Backfill Layer (Placement)	In-Place Moisture Content	Oven-Dry or Nuclear Method	ASTM D 2216 ASTM D 3017	2220-10	1 test/lift
	In-Place Density Relationship	Nuclear Method	ASTM D 2922	2220-10	1 test/lift
	Soil Type Geotechnical	Visual-Manual Procedure	ASTM D 2487	2220-10	Ongoing
Drying Pad Subbase, Decon Pad Subbase, and Roadway	In-Place Moisture Content	Oven-Dry or Nuclear Method	ASTM D 2216 ASTM D 3017	2220-10	2 tests - Drying Pad
	In-Place Density Relationship	Nuclear Method	ASTM D 2922	2210-10	1 test - Decon Pad 2 tests - Roadway
SEEDING:					
Disturbed Areas	Seed	Visual	Conform with VWGCC	01561-04	--
	Fertilizer	Visual	Specification O-F-241	01561-03	
	*Seed Mixture:				
	Bermuda				100 lbs/acre
	Red Top				6 lbs/acre
	Hybrid Fescue				200 lbs/acre
	Fertilizer				1,000 lbs/acre
	Mulch				3,000 lbs/acre
	Topsoil	Agricultural Soil Test for Fertilizer Requirements, pH Thickness		01561-04	5.5 to 7.0
	Soil Erosion Control Silt Fence	Meet Manufacturer's Specifications		01561-01	
	Water	From Approved Source		01010	
EROSION CONTROL:	Method and Operation	Visual	NA	01561	Per event

TABLE 2
(CONTINUED)

Notes:

Atterberg limits will be performed on random fill provided the material of a cohesive nature.

- * Seed mix is as recommended by Virginia Soil Conservation Service and VWWCC. Vegetation and planting in the wetland area will follow the contract specifications.

KEY TO ABBREVIATIONS:

ASTM - American Society for Testing and Materials
TM - Technical Manual (Department of Army)
EM - Engineer Manual (Department of Army)
USDA - United States Department of Agriculture
EPA - Environmental Protection Agency

FIGURES

FIGURE

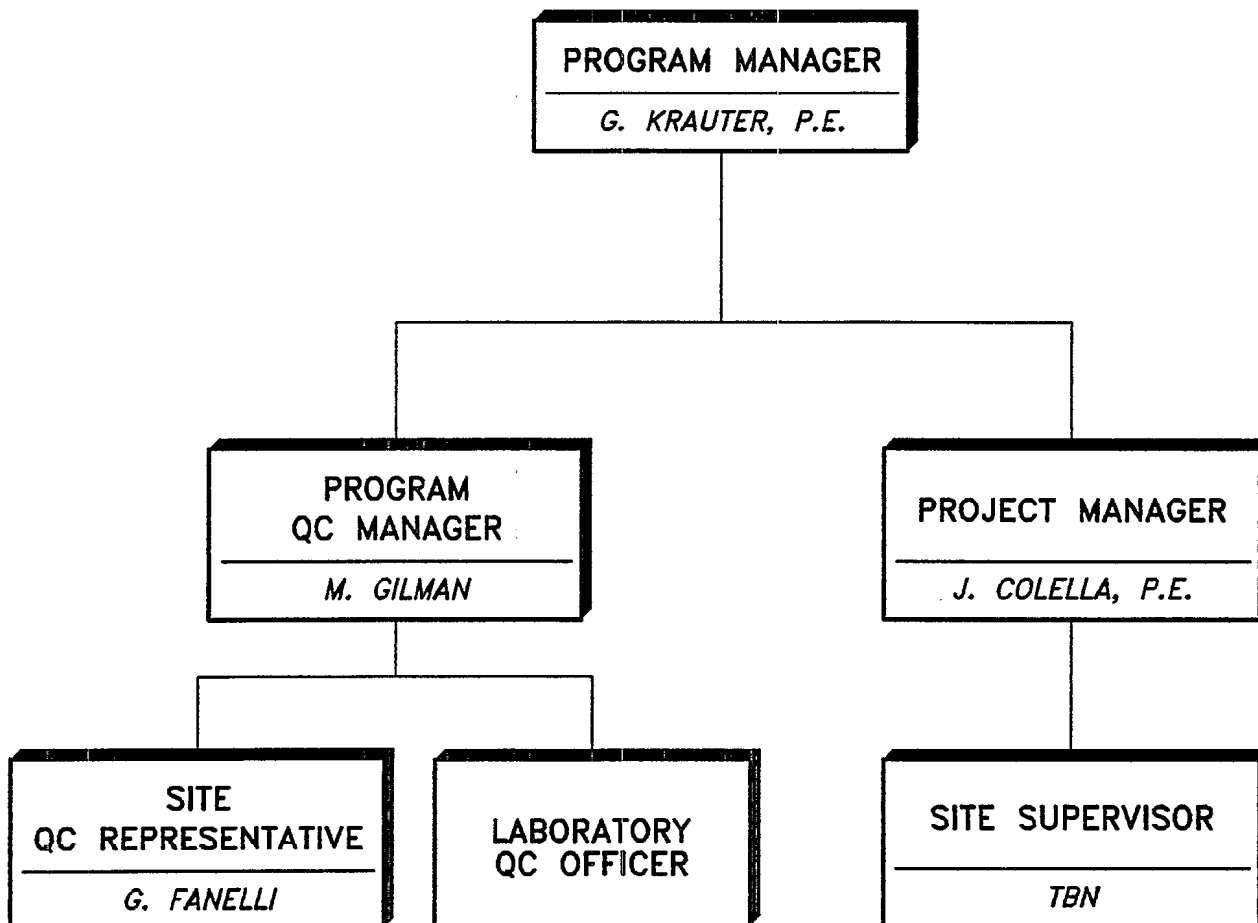


FIGURE 1

QUALITY CONTROL ORGANIZATION CHART
SOIL AND DEBRIS REMOVAL ACTION
CAMP ALLEN LANDFILL, AREA B, NAVAL BASE, NORFOLK, VIRGINIA

PREPARED FOR

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL STATION, NORFOLK, VIRGINIA



OHM Corporation

APPENDIX
A

APPENDIX A
PROFESSIONAL PROFILES

PROFESSIONAL PROFILE

JOSEPH W. COLELLA, P.E.

TITLE

Manager, Engineering

ACADEMIC BACKGROUND

M.S., Civil Engineering, University of Pittsburgh,
Pittsburgh, Pennsylvania, 1976

B.S., Civil Engineering, University of Pittsburgh,
Pittsburgh, Pennsylvania, 1972

Center for Professional Development, Brunswick, New Jersey
Short-Course "Design of Hazardous Waste Landfills"

ASCE Continuing Education "The Effective QA/QC
Program: How to Do It"

EXPERTISE

Management of civil and geotechnical engineering projects

Mr. Colella joined OHM in 1991 and has over 20 years of professional experience in engineering design and project management specializing in civil and geotechnical projects in the fields of hazardous and nonhazardous waste disposal and associated permitting. As a program manager at OHM, Mr. Colella is responsible for ensuring the smooth flow of engineering projects from the initial design phase to implementation, scheduling, budgeting, technical oversight, interfacing with regulatory agencies, and acting as a client liaison.

His past work experience has ranged from performing site evaluations, preparing conceptual designs, final designs, and preparing construction specifications and drawings. Projects he has been involved with include hydrological studies, embankment and dam design, synthetic liner design, development of operating procedures for various types of disposal facilities, and development and review of environmental quality data for disposal sites.

- Mr. Colella was the OHM program manager for the Installation Restoration Program and the Emergency Response Program at the Wright-Patterson Air Force Base in Dayton, Ohio.
- Mr. Colella is the OHM program manager for the Total Environmental Program Support Program with the U.S. Army Environmental Center.
- Mr. Colella has led the site investigation/monitoring well installation for an Army Reserve Center in Wisconsin.

- While working was a manager for a major engineering firm, Mr. Colella was responsible for completion of several projects which entailed scheduling, budgeting, technical oversight, and client coordination. Projects he was involved with consisted of the designing and permitting of several municipal solid waste disposal sites with double liner and leachate collection system, construction inspection of a municipal waste transfer station, ground water assessments/free product investigations at several gasoline stations, and environmental assessments/audits for real estate transfers.
- As a project manager for a major hazardous waste remediation firm, his responsibilities included scheduling, budgeting, technical oversight, and client coordination on various projects involving a wide matrix of chemicals. Key projects included ground water diversion for a waste material pond in Colorado and ground water assessment for a processing facility in West Virginia. Also, he worked as the Task Force Manager for waste stabilization projects.
- As manager of geotechnical engineering for a waste stabilization firm, Mr. Colella supervised, directed, and coordinated professional personnel in all activities relating to the disposal of utility, industrial, and hazardous wastes in stabilized or secure landfills. His responsibilities included all aspects of the engineering design for residual and secure landfills, the environmental monitoring of operating residual landfills, quality control work for operating residual landfills, monitoring the development of operating residual and secure landfills, conceptual and cost estimating work for new sites and technical support to the marketing group. On several projects, the engineering work ranged from concept to final design for the landfill and the processing facility site work. Mr. Colella was responsible for defining the proposed method of operation, preparing sections of the regulatory permit application, preparing cost estimates for operation and construction, preparing construction specifications, and reviewing the application with state and federal agencies. This type of work was performed for sites in Pennsylvania, Ohio, and Idaho. Additionally, he provided construction supervision for the closure of a secure landfill, and the lining of several secure landfills and impoundment facilities with high density polyethylene.

- As project engineer for a consulting engineering firm, Mr. Colella was responsible for directing and coordinating project team activities related to analysis, design, permitting, and/or construction inspection of civil engineering projects for industrial clients in an engineering firm. His work focused on waste management at coal processing facilities and subsurface investigations for waste management and industrial sites.
- Mr. Colella was involved in the design of a coarse coal refuse disposal site and tailings dam. The dam was constructed of coarse coal refuse and built in two stages to retain the coal refuse tailings. The dam was to be 150 feet high and had a watershed of 1,000 acres. The work entailed the conceptual design, subsurface, and hydrogeologic investigation and preparation of the detailed engineering design. Additionally, he prepared design drawings, construction specifications, and the permit application for the state and federal agencies.

Mr. Colella was involved in preparing a strip mining/reclamation plan and permit application for a 250-acre site in Virginia. The work encompassed hydrologic and hydraulic analysis and design, slope stability analysis, and preparation of drawings, specifications, and permit application.

PROFESSIONAL
REGISTRATIONS
& AFFILIATIONS

Professional Engineer (P.E.), Pennsylvania, Texas,
Virginia, West Virginia, and Iowa
American Society of Civil Engineers
Society of Mining Engineers of AIME
Society of Military Engineers

**QUALITY ASSURANCE ENGINEER,
INSPECTION AND TEST DIVISION**

Stone and Webster Engineering Corporation, Boston

Information Technology Division.

As Senior Records Management Analyst, Mr. Fanelli ensured that project records management systems were in accordance with industry standards, government regulations, and corporate policies. Specific responsibilities and activities included training coordination and implementation, survey and analysis of manual and automated information management programs, procedures development, maintenance and turnover of project record, and review and verification of vendor drawings.

Comanche Peak Steam Electric Station, Texas Utilities (November 1989 - July 1990). As Master Parts List Engineer, his duties included:

- Review of parts and components required for the warehouse, construction and operation of CPSES and inclusion of those items on the CPSES Master Parts List (MPL). The MPL provides a baseline of technical and quality requirements while detailing specific parts applications and their linkages/structures between part, components and subassemblies site-wide.
- Duties also included spare parts evaluation. All activities were conducted in accordance with established procedures, industry and regulatory requirements, and the EPRI Guidelines.
- Responsible for duties detailed for Assistant Lead - Records and Training excepting daily administrative duties.

As Assistant Lead - Records and Training, Master Parts List Group, Procurement Engineering (May 1989 - November 1989), Mr. Fanelli's duties included, but were not limited to:

Training:

- Worked with the Training Coordinator of Material Management Organization (MMO) to develop and implement the personnel indoctrination and training program to meet more stringent guidelines as delineated by EPRI, INPO, and NRC at CPSES.
- Developed detailed lesson plans to indoctrinate personnel to the new MMO procedures.
- Conducted training sessions on above-referenced lessons, and composed examinations as a part of those lesson plans.
- Developed detailed matrices for use as a management measuring tool to assess status and effectiveness of training program. Found to be extremely beneficial during audit activities. These matrices were utilized to measure all Combined Engineering Contractor's Organization (CECO) training and indoctrination activities.
- Developed ongoing assessment system of engineer's disposition of duties to reinforce proficiency and show deficiencies and lapses in performance that would require retraining.
- Training program matrix was utilized as a marketing tool for SWEC QA Services.

QUALITY ASSURANCE ENGINEER, INSPECTION AND TEST DIVISION

Records:

Mr. Fanelli was responsible for overall implementation and effectiveness of MPL records retention and turnover system in accordance with MMO, Texas Utility, and regulatory requirements.

As Assistant Lead - Records and Training, Spare Parts Review Group of Procurement Engineering (August 1988 - May 1989), Mr. Fanelli's duties included, but were not limited to:

- Coordinating and implementing all training and personnel indoctrination activities.
- Performing final review of all spare parts review packages after completion by the engineers prior to final approval by the Supervising Engineer.
- Formulating man-hour projections and monitoring time charge.
- Compiling data, analyzing trends, and assessing progress to report to the Supervising engineer and project management.
- Designing and maintaining procedural forms control.
- Setting up a workable filing system for all records generated by and maintained by SPRG.
- Turning over all permanent plant records (as defined by the client) to SWEC Document Control, and eventually Texas Utilities.

Davis-Besse Nuclear Power Station (January 1988 - August 1988). As Staff Engineer - Mechanical Section of Vendor Drawing Review Group in Configuration Management, Mr. Fanelli's responsibilities included, but were not limited to:

- Matching all mechanical components in the plant to their respective vendor/manufacturer drawings. Where discrepancies were noted, or when valid drawings could not be located, the findings were documented, and corrective action suggested.
- Performing detailed drawing reviews of drawings previously matched to their respective component(s) and noting document discrepancies.
- Building data base of all above activities.

Procurement Quality Control Division (January 1974 - March 1988)

As Procurement Assurance Engineer (March 1981 - March 1985), Mr. Fanelli was responsible for coordinating district office estimates on all inspection and audit/survey activities. He updated existing estimates as required; maintained Memorandum of Quality Assurance Change (MQAC) control system; tracked district performance on existing budgets; scheduled inspection and status visits to vendor's shops; coordinated district audit survey involvement; scheduled district documentation review priorities; monitored Nonconforming Disposition Report (N&D) and Engineering and Design Coordination Report (E&DCR) reporting systems; reviewed incoming Inspection reports and Status Reports; coordinated district office inspection plan reviews and upgrades; performed district trend analysis; coordinated Nondestructive Examination training (NDE) and Continuing Education Development (CED) training programs; he assisted in performing inspections and surveys; and participated on audits, as required.

QUALITY ASSURANCE ENGINEER, INSPECTION AND TEST DIVISION

As Quality Assurance Specialist, Mr. Fanelli's responsibilities included maintaining the suborder coordination, performing shop inspections as required, and conducting surveys and audits. He assisted the District Manager in maintaining and performing duties which included review of new purchase orders, specifications and addenda, and assigning same to responsible inspectors. He also reviewed suborders and prepared the necessary inspection plans, coordinated the status reporting effort, reviewed completed status reports for content prior to issue, and maintained district vendor information files.

As District Documentation Reviewer, Mr. Fanelli reviewed completed purchase order files, correspondence, E&DCRs and N&Ds and specifications and their addenda. He also reviewed referenced codes and standards to each purchase order, and extracted documentation requirements. He organized and updated document review worksheets and maintained log books for each project, issued copies of document review status log sheets to Boston for activities during each month, and reviewed inspection reports for content and accuracy. He reviewed documentation packages for accuracy, legibility, and completeness. When discrepancies were noted, he contacted the responsible PQA Inspector, notified him of the discrepant conditions, and scheduled a return visit to retrieve corrections. In the case of extensive corrections, he accompanied the Inspector to assure all corrections were completed, and to preclude re-occurrence. After satisfactory review of all packages, he transmitted to the respective project for their review and ultimate turnover to the client. Mr. Fanelli worked closely with the Supervisor, Quality Information Center, notifying him of any significant trends or problems which have developed as a result of discrepant documentation reviews. He also maintained the district technical library which included various codes, standards, and industry periodicals and publications.

Procurement Quality Control Department, Newport News, Shipbuilding (November 1985 - January 1988). Mr. Fanelli's responsibilities included analysis of discrepancies pertaining to controlled material used in the construction and overhaul of US Navy submarines and aircraft carriers. Provided recommendations for improving the discrepancy reporting system, contacted vendors to resolve open discrepancies, acted as liaison between vendor and NNS purchasing and engineering departments, and maintained knowledge of military specifications and federal standards.

Nine Mile Point Nuclear Generating Station Unit 2, Niagara Mohawk Power Company (July 1985 - November 1985). Mr. Fanelli was assigned to the Large Bore Piping Documentation Overview Group, responsible for reviewing all packages prepared by the prime piping contractor, ITT Grinnell. His responsibilities included review of Grinnell documentation packages prior to turnover to (N5) the client, review and check of spool drawings, and audit of spool packages.

River Bend Station, Gulf States Utilities (March 1985 - July 1985). Mr. Fanelli was assigned to SWEC's Field Quality Control Department (FQC), acted as FQC sign-off in the rework control system in the ASME piping/support as-built phase of construction for the N5 effort. Duties included reviewing engineering initiated requests for rework inspection, assigning FQC hold points, reviewing the completed rework control forms for completeness and accuracy, and assuring all hold points had been satisfied.

Jersey Central Power & Light Company (February 1980 - April 1980, September 1980 - April 1981).

As Quality Assurance Specialist, Mr. Fanelli reviewed purchase requisitions and purchase orders and specifications for quality assurance and regulatory requirements. He performed various duties as assigned by JCP&L.

As Quality Control Inspector (June 1977 - September 1977), Mr. Fanelli was responsible for conducting inspections at vendor's facilities during various phases of manufacture of equipment/components to assure compliance to SWEC's purchase order, specifications and drawings.

QUALITY ASSURANCE ENGINEER, INSPECTION AND TEST DIVISION

As Assistant Procurement Quality Control Inspector (January 1974 - June 1977), Mr. Fanelli's responsibilities included editorial function of PQC inspection reporting system, performance of internal audits on office and Inspector's purchase order files. He also assisted on in-process inspections of equipment as directed by the District Manager.

Academic Background

Susquehanna University, (1968 - 1970)

Montgomery County Community College (1973 - 1976)

Professional Certifications

Certified Lead Auditor (Level III) - ANSI N5.2.23

PROGRAM QUALITY CONTROL MANAGER

MICHAEL I. GILMAN

In addition to 18 years of Engineering experience, Mr. Gilman presently holds a lead QA position at Stone & Webster Engineering Corporation. In this position, he has implemented a wide variety of QA programs involving services such as QA program review, vendor monitoring, and field inspection. His quality engineering work has included performing assessments of numerous plant QA programs, review of technical documents, preparation of inspection plans, QA procedure system development, procedure review, and continuing education. Mr. Gilman is experienced in trend analysis with the development of systems and forms to ensure the recording, transmission, and adequacy of quality data, and the use of computer and statistical techniques to collect, process, and analyze data.

Experience

As Program Quality Control Manager for OHM's LantDiv RAC, Mr. Gilman is responsible for the enforcement of Corporate QA/QC policies and contract provisions. He works closely with the Program Manager, Mr. George Krauter, to coordinate QA/QC activities at each site to ensure they are carried out properly in support of on-going site operations. Mr. Gilman's role and responsibilities at the Program level include:

- Establishing and administering all quality matters for OHM for the LantDiv RAC
- Designating a project QC Manager for each Delivery Order
- Reviewing and approving Delivery Order QC plans
- Authorizing stop work if work activities or planning activities violate OHM quality guidelines or LantDiv RAC contract requirements
- Developing and implementing a Delivery Order specific quality control plan
- Interfacing directly with Government Quality Assurance personnel
- Conducting daily QC meetings
- Supervising performances of site QC activities
- Ensuring that QC testing is performed in accordance with specifications, and in a timely manner
- Requiring corrective actions for any item or activity which does not meet specifications or quality standards
- Modifying/halt work if activities violate LantDiv or OHM quality standards or contract requirements
- Preparing required QC certifications and documentation

PROGRAM QUALITY CONTROL MANAGER

Stone and Webster Environmental Technology & Services

As Section Manager of the QA Department of Stone & Webster Engineering Corporation's Cherry Hill office, he is responsible for providing guidance in the implementation of all phases of the QA programs for nuclear and fossil power plants, environmental assessment, management, and remediation, and government projects. These projects include:

- Department of the Navy - Newport News Shipbuilding
- Department of the Navy - North Div Naval Facilities Engineering Command BRAC
- Delmarva Power & Light
- New Jersey Turnpike
- Salem Generating Station - Units 1 and 2
- Hope Creek Generating Station
- River Bend Station
- Nine Mile Point Nuclear Station - Unit 2
- Calvert Cliffs Nuclear Power Plant
- Limerick Generating Station
- Fort Calhoun

Mr. Gilman has served as the Project Manager responsible for QA and other supporting department activities for services provided to a major shipyard involved in the construction and overhaul of naval vessels.

Since joining Stone & Webster, he has been assigned to the Cherry Hill office as Supervisor, QA Department Representative, QA Engineer, and Lead Engineer, and to the Boston office as an Engineer in the Reports Group of the Quality Systems Division.

Prior to joining Stone and Webster, Mr. Gilman worked in manufacturing engineering on several government projects for GTE Sylvania, the Foxboro Company, and a plastic molding manufacturer for which his responsibilities were to provide industrial engineering support for the assembly of electronic equipment, and quality control inspection and testing.

Education

M.S., Business Administration, Drexel University
B.S., Industrial Engineering, Northeastern University

Specialized Training

Hazardous Waste Operations Courses, both worker and supervisory training (per OSHA 1910.120)

Licenses and Registrations

American Society for Quality Control - Certified Quality Engineer
American Society for Quality Control - Member
American Nuclear Society - Delaware Valley Section - Member
American Institute of Industrial Engineers - Member

GEORGE E. KRAUTER, P.E.

Special Qualifications

- Thirty-five years of program management experience, including 14 years on DOE and DOD CPFF/FFP contracts involving up to 190 personnel and \$200 million.
- Sixteen years of experience in managing all facets of HTRW investigations, design, and remedial actions, including five HTRW project involving cradle-to-grave remediation for USACE.
- Directed 40 professionals and 150 craft in managing a \$30 million per year CPAF task order contract for engineering and construction of HTRW facilities at DOE's Hanford reservation--commended by DOE management for being the smoothest run program at Hanford.
- Extensive experience with CERCLA, RCRA, OSHA, and NEPA and state regulations that are being applied to ongoing work.

Education

M.S., Physics, Naval Postgraduate School
B.S., Civil Engineering, Rensselaer Polytechnic Institute
B.S., Engineering, U.S. Naval Academy

Licenses and Registrations

Professional Engineer - Pennsylvania

Relevant Experience

As Program Manager for OHM's LANT DIV RAC, Mr. Krauter has total responsibility and accountability for the successful operation of the contract. Specifically, this includes ensuring effective program communications, committing company resources to accomplish program and project order objectives, receiving task orders, providing program-wide continuity for the technical direction of projects, planning and scheduling work activities, resolving workload conflicts on a program-wide basis, managing program-wide costs and contractual requirements, QA/QC, and fulfilling administrative and financial contractual reporting requirements.

Stone & Webster Environmental Technology & Services (1991 - Present)

Project Sponsor/Director, USACE - Norfolk District, Radford Army Ammunition Plant - Directs 15 personnel performing more than 25 tasks on five different FFP contracts, including PA/SI, RI/FS, Remedial Design, Title II Services, public participation, NEPA compliance, and federal/state permitting. Manages technical/contractual oversight, QA/QC, and health and safety.

- Provides accountability to USACE by serving as principal point of contract for \$40 million in remediation services and capital expenditures.

- Ensures effective cost and quality control by interpreting, planning, and forecasting work using proven corporate management systems and procedures.

Task Manager, CPFF Contracts, DOE Savannah River - Provided management/technical expertise to complete tasks related to two CPFF contracts for DOE Savannah River (DOE-SR).

- Ensured effective planning and tracking of decommissioning tasks by developing management systems in accordance with client requirements.
- Satisfied DOE-SR's regulatory concerns by directing 20 environmental professionals in performing environmental audits to ensure compliance with RCRA, CERCLA, NEPA, Clean Air Act, Clean Water Act, and NESHAP.

Project Manager, HTRW Projects - Managed 25 engineers spread across five teams in developing Independent Cost Estimates for HTRW projects at three major DOE sites in Oak Ridge.

ICF-Kaiser (1989 - 1991)

Program Manager, DOE Richland - Directed detailed engineering, design, and construction of more than \$200 million of waste management facilities for the tank farm upgrade at the Hanford reservation. Managed 40 professional and 150 craft labor, providing overall technical and administrative responsibility for a CPAF contract involving seven major tasks valued at \$30 million per year.

- Successfully satisfied client concerns by developing the "smoothest run program at Hanford, which should serve as a model for all programs administered jointly by KEH and WHC" (DOE Richland management).

Project Manager, DOE Feed Materials Production Center Fernald - Managed independent reviews of RI/FS reports for five operable units involving remediation of radioactive and hazardous wastes including pits, ponds, lagoons, and drum storage areas containing uranium, thorium, arsenic, mercury, TCE, waste oils, PCBs, and spent solvents.

- Ensured the client could expedite remediation of contaminated sites by determining the applicability/effectiveness of 30 different innovative technologies.

IT Corporation (1985-1989)

Program Manager, Hazardous Waste Remedial Action Program (HAZWRAP) - Directed a CPFF \$10 million per year contract involving more than 60 professionals and six subcontractors, including SB/SDBs, in performing SI and RI/FS at various military bases. Oversaw field investigations, drilling/laboratory subcontracts, and preparation of remedial investigation reports for contaminants including petroleum, solvents, VOCs, and PCBs.

- Improved project health and safety by effectively managing the implementation of a comprehensive Health & Safety Program.

Project Manager, Feed Materials Production Center Fernald - Managed the efforts of approximately 30 force account personnel in directing the construction of an automated handling system for the removal of more than 50,000 cubic feet of thorium containing dry sludges from three elevated storage silos.

- Reduced potential exposure to personnel by building the system into a standard 20-foot shipping container operated under negative pressure.

- Demonstrated strong management skills by accomplishing this \$3 million project on schedule and within budget.

Project Manager, Shipping Port Atomic Power Station - Managed the efforts of 35 force account personnel in removing asbestos from radioactively contaminated areas. Removed 430 cubic yards of asbestos insulation from tanks, vessels, piping, ducting, and equipment.

- Identified uncertainties and critical path activities of this \$3 million contract by developing detailed work procedures in accordance with OSHA and state regulations.

Project Manager, Nuclear Source Fabrication Facility - Directed 15 force account personnel in site planning and restoration. Developed the survey plan, removal plan, sampling plan, health and safety plan, detailed work procedures, and the final release of the site by the Nuclear Regulatory Commission. Met schedule and budget requirements.

- Supported site restoration by decontaminating equipment and facilities, removing and packaging radioactive materials, and overseeing facility demolition.
- Provided significant storage/disposal cost savings by developing an innovative method for reducing the volume of transuranic waste, yet achieving a 100% acceptance of "repackaged" drums.
- Managed final site restoration including backfilling and landscaping after NRC acceptance.

Program Manager, 3M Company - Managed 85 subcontractor and force account personnel in the characterization of 250 sites nationwide, including sites in Massachusetts and Rhode Island. Seventy of these sites required cleanup of polonium which had been released from faulty static eliminators.

- Effectively controlled mobilization, materials handling, and subcontractors in supporting up to eight sites throughout the U.S. for this \$3 million project.
- Satisfied 100% of client's goals by successfully completing the project under extremely tight schedule requirements - commended by the client for timely assistance in identifying problem sites and remediation approaches.
- Met regulatory concerns by working closely with the Nuclear Regulatory Commission and state representatives to ensure cleanup; developed health and safety plans.

Quadrex (1981-1985)

Manager of Projects - Directed a staff of 30 involved in engineering, design, and installation activities in support of numerous nuclear power plant modification projects for various utility clients. These projects ranged in size up to \$4 million and involved both force account and subcontractor personnel.

- Planned and tracked major projects by developing a management controls system (MIS) and providing training to Project Managers.

TRW (1979-1981)

Project Manager, DOE's Remedial Action Program - Managed 30 professionals to review plans for Formerly Utilized Sites Remedial Action program (FUSRAP) projects, and prepared other Program Documents for DOE.

Determined remedial approach, developed schedules/estimates for remediation, and planned specialty subcontractor activities.

U.S. Navy Civil Engineer Corps (1958-1979)

Deputy Officer in Charge of Construction, Europe - Directed the construction of projects annually averaging \$26 million and provided the design of new facilities and modifications. Held full contract authority and was the senior member for selection and negotiation contract boards.

- Restructured and organized resources to accommodate an unexpected 30% increase in workload without requiring additional resources.
- Received Meritorious Service Medal for accomplishments in design and construction.

Officer in Charge, Naval Nuclear Power Unit - Managed 25 professionals and 35 craft who directed the development of the Environmental Impact Assessment, the Safety Analysis Report, and the Removal Plan for the PM-3A reactor decommissioning.

- Completed project on schedule and within budget by managing the preparation of detailed critical path schedules and detailed work procedures.
- Ensured effective remediation by directing the removal of 5,000 square yards of contaminated soil.

**APPENDIX
B**

APPENDIX B

PROJECT FIELD ACTIVITY FORMS

CONTRACTOR QUALITY CONTROL REPORT		DATE
ATTACH ADDITIONAL SHEETS IF NECESSARY		
PHASE	Y - YES N - NO. SEE REMARKS. BLANK - NOT APPLICABLE	IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT
PREPARATORY	<div style="font-size: x-small;"> THE PLANS AND SPECS HAVE BEEN REVIEWED THE SUBMITTALS HAVE BEEN APPROVED MATERIALS COMPLY WITH APPROVED SUBMITTALS MATERIALS ARE STORED PROPERLY PRELIMINARY WORK WAS DONE CORRECTLY TESTING PLAN HAS BEEN REVIEWED WORK METHOD AND SCHEDULE DISCUSSED </div>	
INITIAL	<div style="font-size: x-small;"> PRELIMINARY WORK WAS DONE CORRECTLY SAMPLE HAS BEEN PREPARED/APPROVED WORKMANSHIP IS SATISFACTORY TEST RESULTS ARE ACCEPTABLE WORK IS IN COMPLIANCE WITH THE CONTRACT </div>	<div style="font-size: x-small; text-align: center;">TESTING PERFORMED & WHO PERFORMED TEST</div>
FOLLOW-UP	<div style="font-size: x-small;"> WORK COMPLIES WITH CONTRACT AS APPROVED IN INITIAL PHASE </div>	<div style="font-size: x-small; text-align: center;">TESTING PERFORMED & WHO PERFORMED TEST</div>
REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)
REMARKS		
On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.		
_____ AUTHORIZED QC MANAGER AT SITE		_____ DATE
GOVERNMENT QUALITY ASSURANCE REPORT		DATE
QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT		
_____ GOVERNMENT QUALITY CONTROL MANAGER		_____ DATE

CONTRACTOR QUALITY CONTROL REPORT CONTINUATION SHEET

DATE

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

CONTRACT NO

REPORT NO

PHASE Y - YES N - NO SEE REMARKS
BLANK - NOT APPLICABLE

IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT

PREPARATORY

THE PLANS AND SPECS
HAVE BEEN REVIEWEDTHE SUBMITTALS HAVE
BEEN APPROVEDMATERIALS COMPLY WITH
APPROVED SUBMITTALSMATERIALS ARE STORED
PROPERLYPRELIMINARY WORK WAS
DONE CORRECTLYTESTING PLAN HAS BEEN
REVIEWEDWORK METHOD AND
SCHEDULE DISCUSSEDPHASE Y - YES N - NO SEE REMARKS
BLANK - NOT APPLICABLE

IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT

INITIAL

PRELIMINARY WORK WAS
DONE CORRECTLYSAMPLE HAS BEEN
PREPARED/APPROVEDWORKMANSHIP IS
SATISFACTORYTEST RESULTS ARE
ACCEPTABLEWORK IS IN COMPLIANCE
WITH THE CONTRACTTESTING PERFORMED & WHO
PERFORMED TEST

CONTRACTOR QUALITY CONTROL REPORT CONTINUATION SHEET

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE

CONTRACT NO

REPORT NO

PHASE IDENTIFY DEFINABLE FEATURE OF WORK LOCATION AND LIST PERSONNEL PRESENT

Y - YES, N - NO SEE REMARKS. I
BLANK - NOT APPLICABLE

WORK COMPLIES WITH
CONTRACT AS APPROVED
IN INITIAL PHASE

TESTING PERFORMED &
WHO PERFORMED TEST

FOLLOW-UP

TESTING PLAN AND LOG

CONTRACT NUMBER		PROJECT TITLE AND LOCATION							CONTRACTOR			
SPECIFICATION SECTION AND PARAGRAPH NUMBER	ITEM OF WORK	TEST REQUIRED	ACCREDITED/ APPROVED LAB		SAMPLED BY	TESTED BY	LOCATION OF TEST		FREQUENCY	DATE COMPLETE	DATE FORWARDED TO CONTR. OFF.	REMARKS
			YES	NO			ON SITE	OFF SITE				

REWORK ITEMS LIST

Contract No. and Title: _____

Contractor: _____

NUMBER	DATE IDENTIFIED	DESCRIPTION	CONTRACT REQUIREMENT (Spec. Section and Par. No., Drawing No. and Detail No., etc.)	ACTION TAKEN BY QC MANAGER	RESOLUTION	DATE COMPLETED

SUBMITTAL REGISTER
Soil and Debris Removal Action
Camp Allen Landfill, Area B, Naval Base, Norfolk, Virginia

Delivery Order 003

Page 1 of 1

Contract No. N62470-93-D-3032

Project Title: Soil & Debris Removal Action

Location: Camp Allen Landfill, Area B

Contractor: OHM Remediation Services Corp.

[illegible]

*Navy Notes:

*NASA Notes:

*Army Notes:

Action Codes:

(Others may be prescribed by Transmittal Form)

Approved By:
G: Contracting Officer
Blank: CQC Manager

Approved By:
Blank: Contracting Officer

Classification:
GA: Government Approval
FIO: For Information Only

NR: Not Reviewed
A: Approved
AN: Approved as Noted
RR: Disapproved; Revise and Resubmit